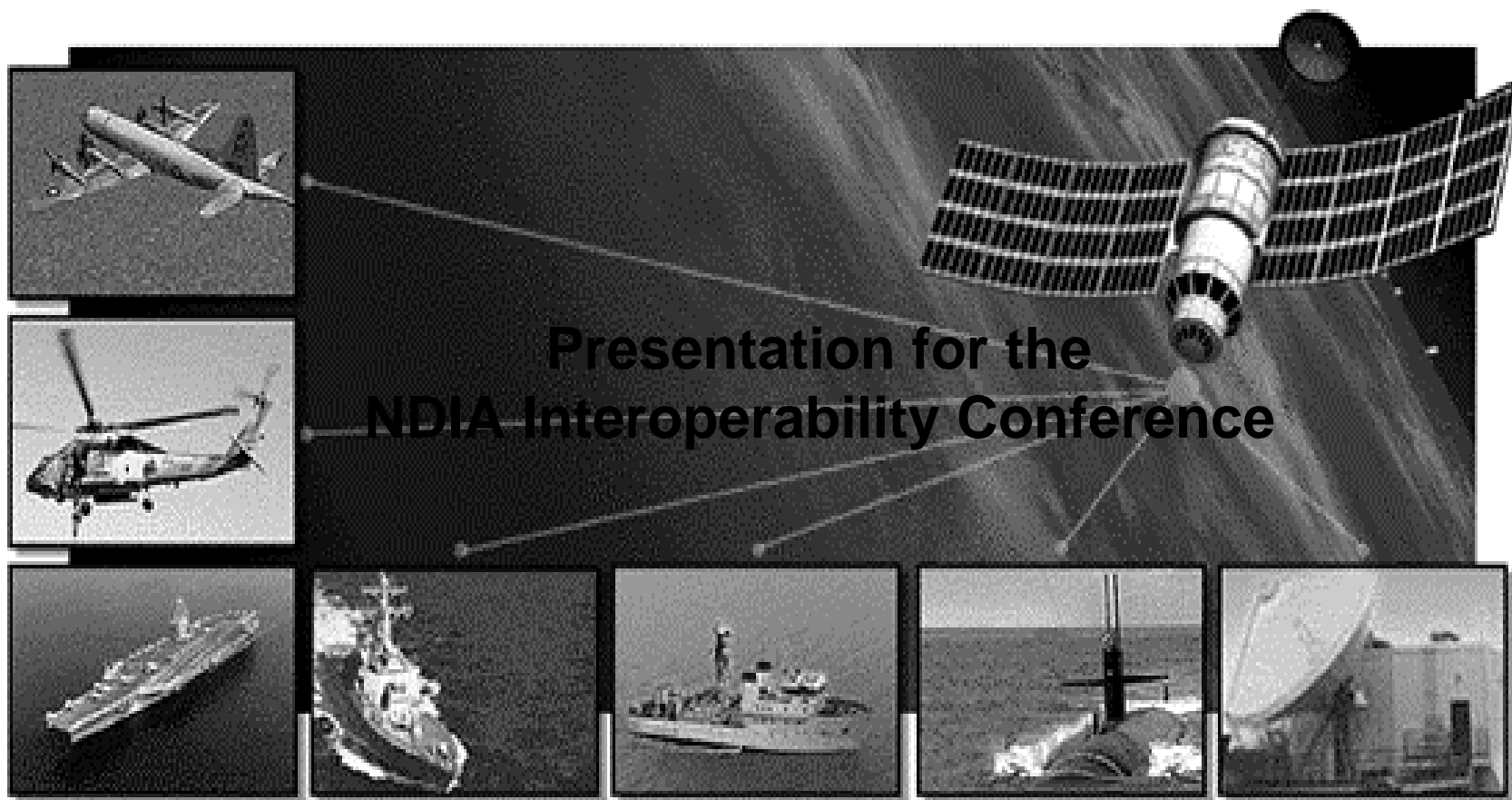

COMMON USW PICTURE



30 May 2001

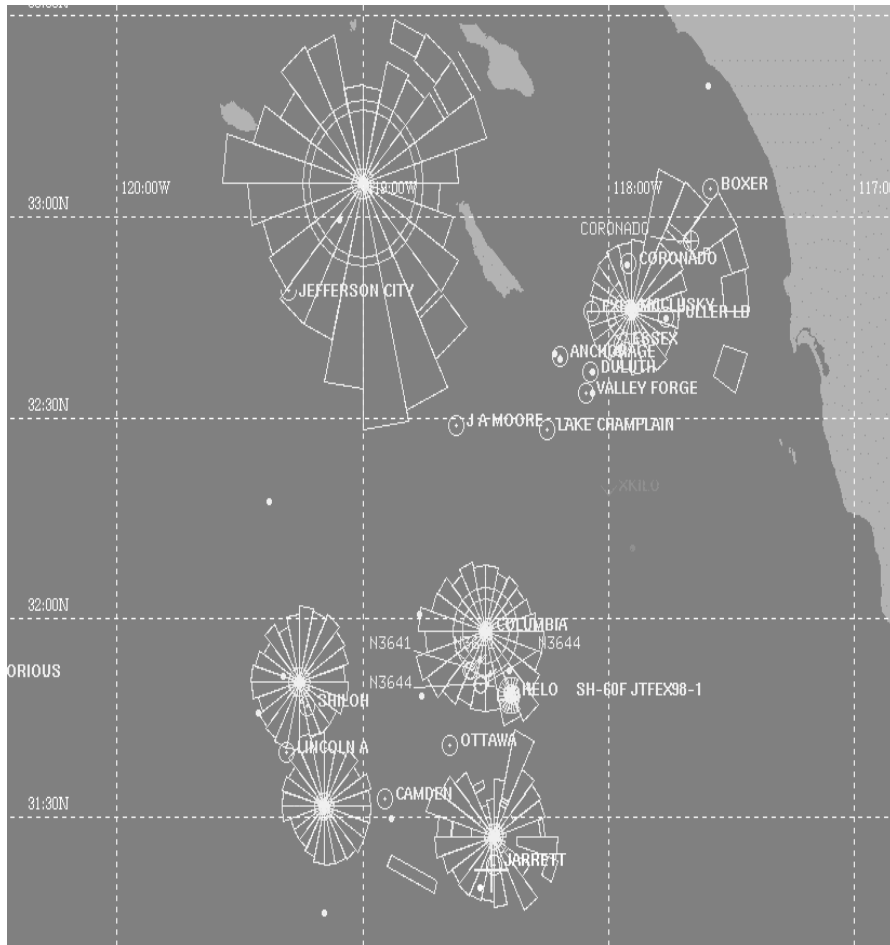
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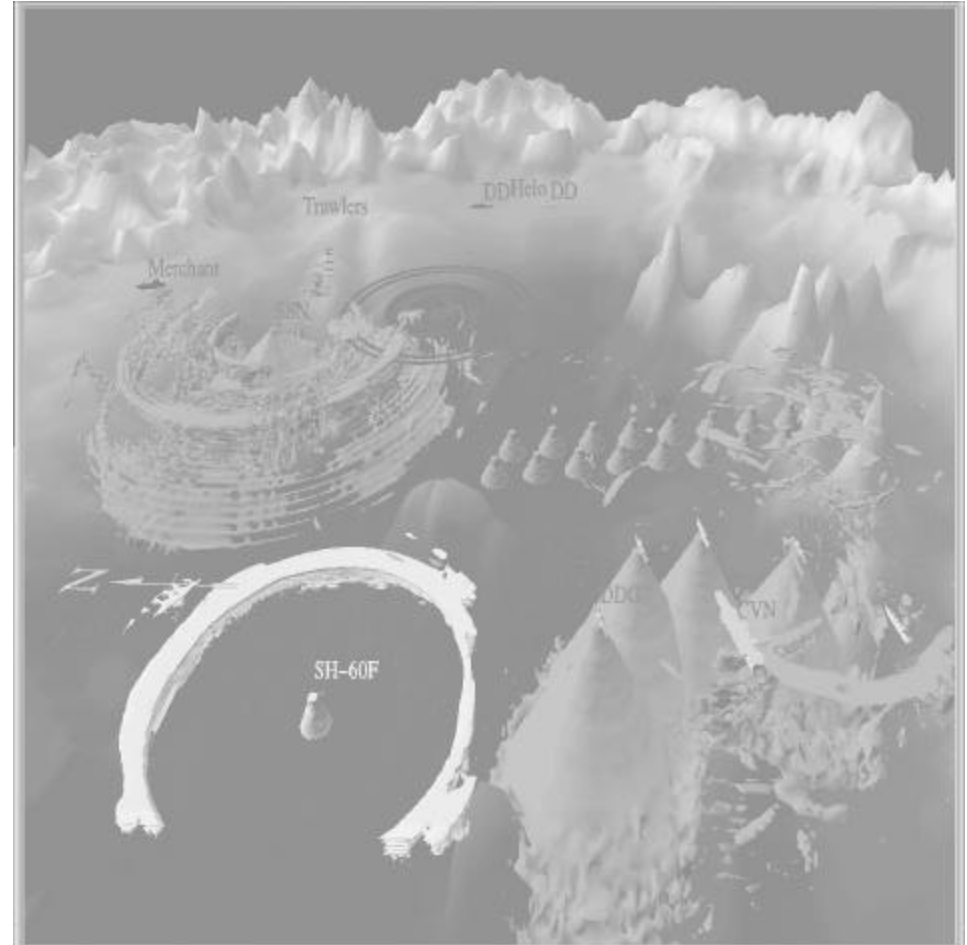
“COMMON UNDERSEA PICTURE”

DIFFERENT PERSPECTIVES...SAME “REAL” WATERSPACE



2-D AND...

NDIA Interop Conf



...3-D

UNCLASSIFIED

What is the CUP Vision?

- **Provide Fleet with capability to plan and conduct USW operations with full knowledge to:**
 - **Align sensors to exploit environment**
 - **Allocate resources and optimize operations**
 - **Assess risks and vulnerability**
 - **Manage waterspace**
- **Provide this as a software application to Navy C4I systems**

Forging a Community Consensus



ASW Modeling Summit (Aug 00)

N77 as Lead Resource Sponsor

Common, Cross-Platform Requirements & Integrated Resources

N77 Precision Environmental Data Study

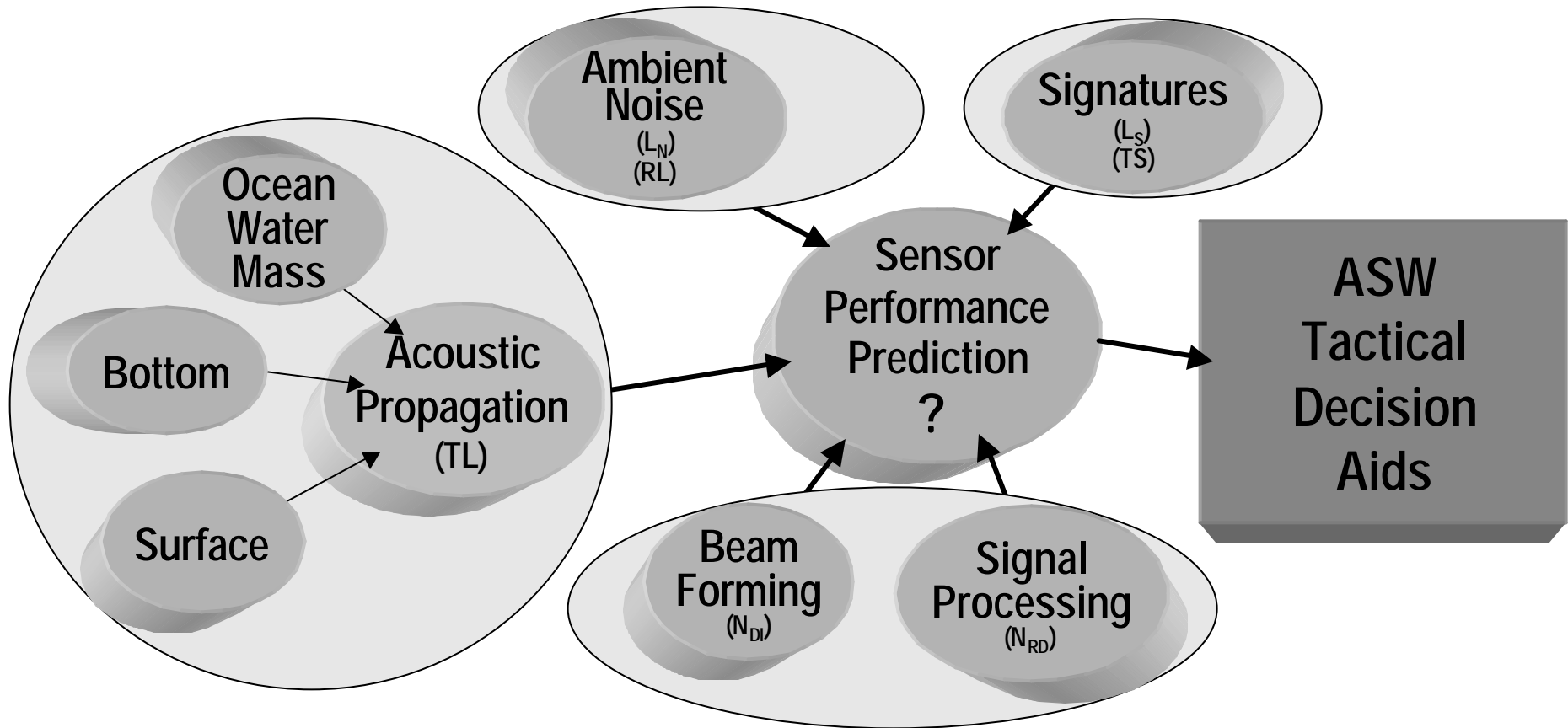
Key Data, Data Specs and Models for Best Predictions by Region

Common Undersea Picture Summit (16-17 Nov 00)

ASW Requirements Capture (15-16 Feb 01)

AUSWC- Near Term Demo of an initial USW NCW Architecture

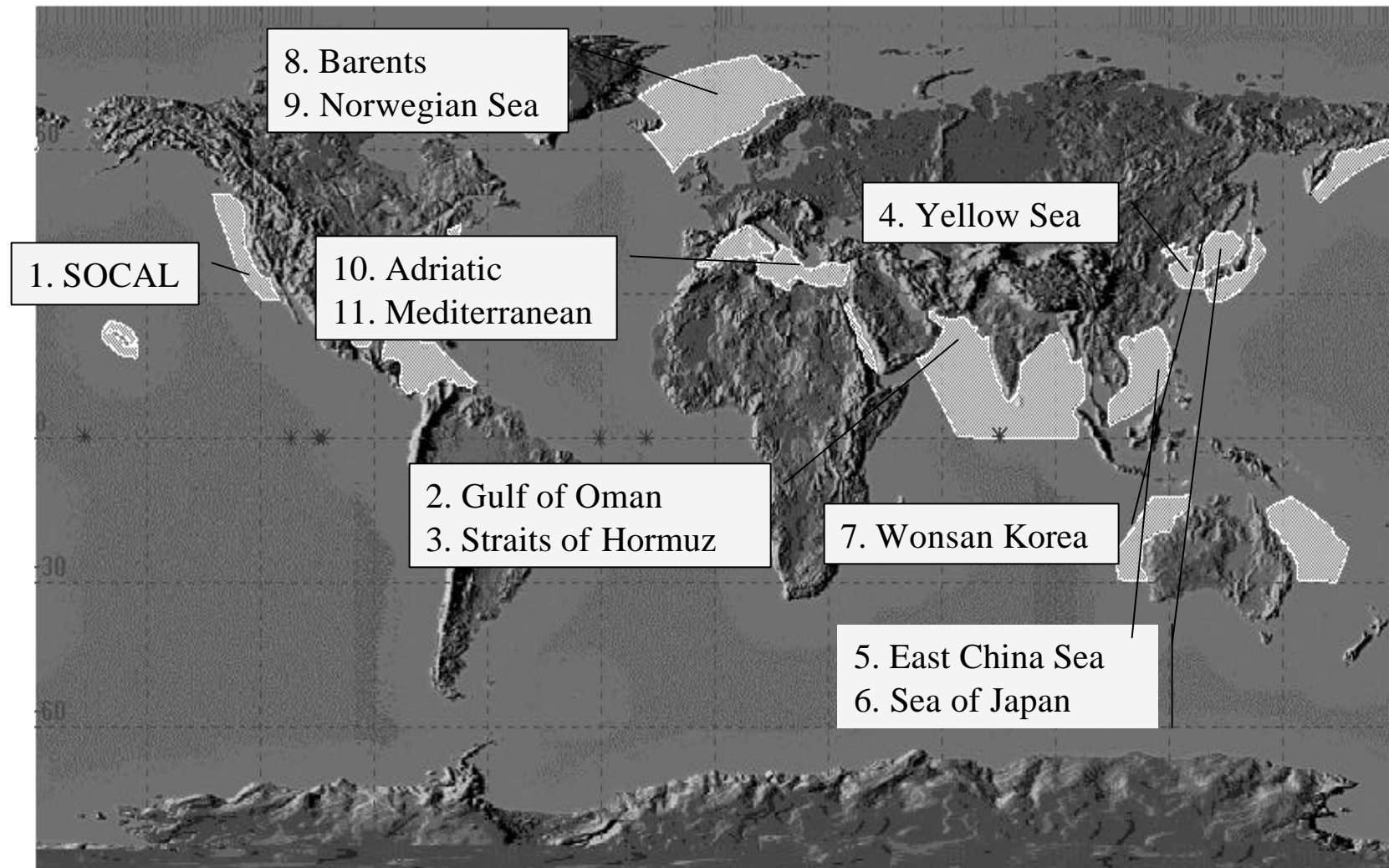
ASW Modeling Summit



*No Established Data Specs/ Data Management “Owner” and
No One Owns the “Final Product” to the User*

VALIDATION of TDAs essential!

N77 Precision Environmental Data Study



Goal: Define key data, data specs, and models for best predictions by region

Common Undersea Picture Summit

- **Hosted by N74, PEO MUW, NAVSEA 93, and SPAWAR PD-18**
- **Over 110 participants represented all levels of USW (MIW + ASW) Community, including key Fleet Reps**
- **Flag consensus to:**
 - **Build upon past efforts**
 - **Focus on USW at Sea Combat Cdr/MIW Cdr level**
 - **Develop POAM, using “open & inclusive” process**
 - **Link to Navy C4I infrastructure**

Advanced USW Concept (AUSWC)

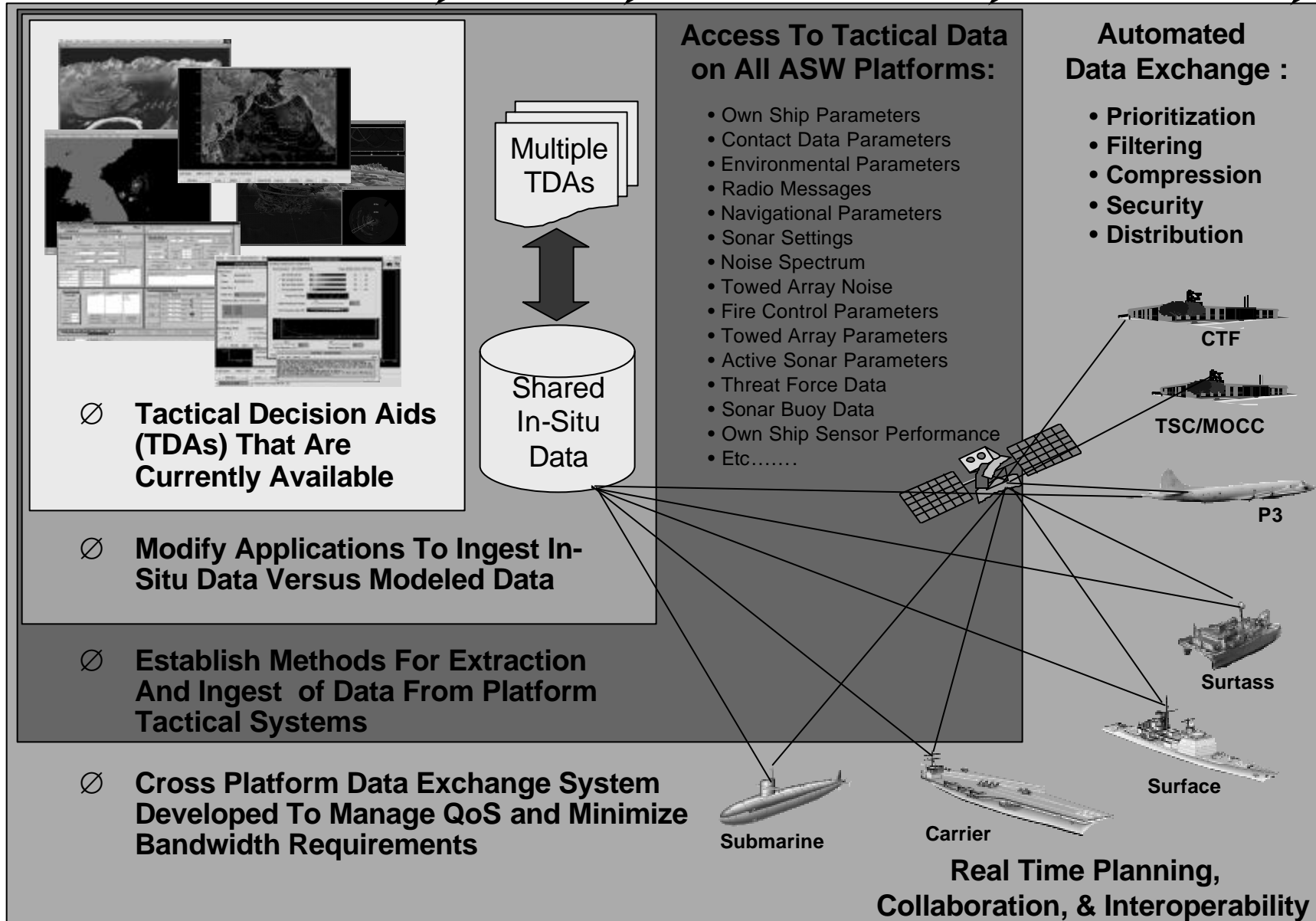
Goals:

- **Field/ Demonstrate a Network-Centric USW Theater Combat System**
 - **Common Picture**
 - * **Common Environmental Picture**
 - * **Common Decision Aids / Models**
 - * **Common Communications / Database services**
 - **Collaborative Planning Capability**
 - **Vulnerability Assessment**
- **Common Framework for Future S&T Initiatives**
- **Cross-Platform USW Community Participation**

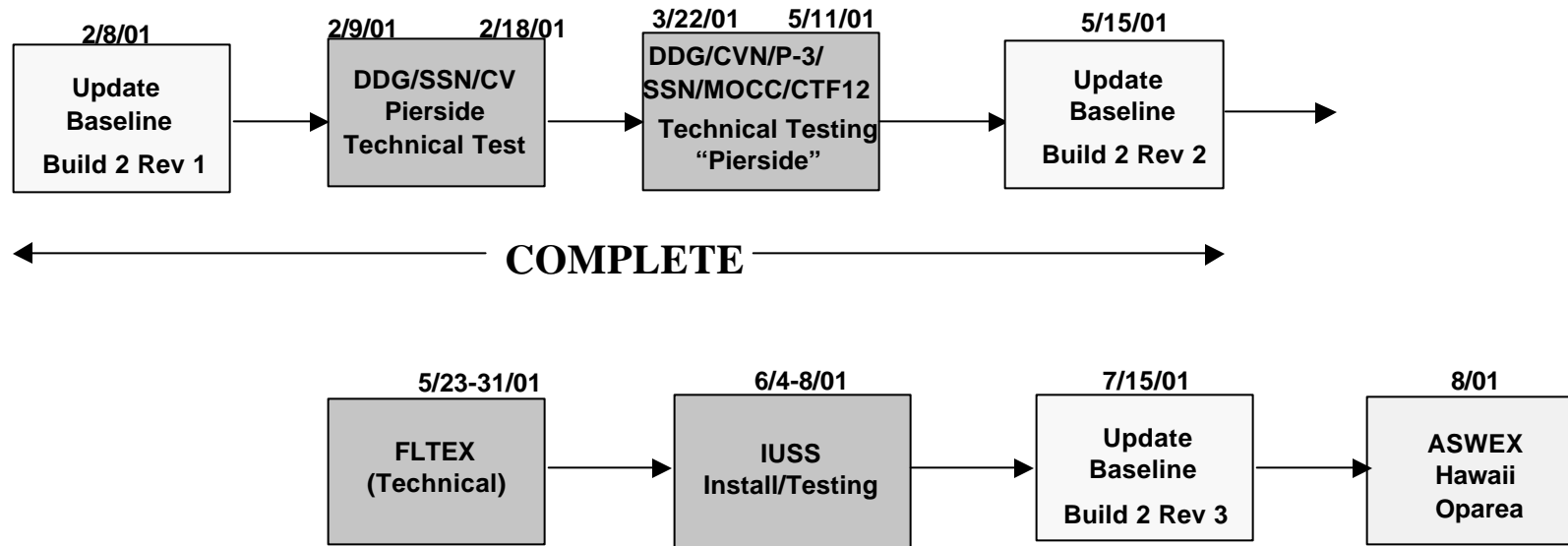
Incremental Steps to Achieve Network Centric Capability

Start

Network Centric



AUSWC Integration/Test Schedule



- Software Delivery
- Technical Test
- Operational Demo

Integration Lessons Learned

- **Adopt an Open Source Policy**
 - **Interface Source Code Should be Considered Absolute Minimum**
- **Integration of Closed Architecture-Based Applications is Difficult and Costly**
- **DII-COE compliancy (even to level 6) does not guarantee interoperability**

Communications

- **Existing Communications (Network and Bandwidth Management) Methods are a Challenge**
 - Allocation vice Management of Bandwidth
- **Management of Network Bandwidth by Allocation Creates Conflicts and Further Reduces Available Pipes**
- **Advertised Platform “Pipes” of 32K Actually Provide Less Than 9K Within the GENSER Enclave**
 - No Consistent Bandwidth at any Workstation
 - An Image Download on any GENSER Workstation Effectively Reduces Your Bandwidth to 0

Data Management Services Required

Summary

- **Challenge is to provide near term tools for today's warfighters, while working long term solution**
- **Consolidating USW requirements to support program initiation**
- **USW Community committed to cross-platform cross-mission area development & implementation**

Questions?

